PUBLIC SAFETY COMMITTEE
March 28, 2016 3:30 P.M.
4th Floor Training Room, Municipal Building

CURRENT COMMITTEE MEMBERS:
Cecil Bothwell, Chair
Brian Haynes
Julie Mayfield

AGENDA

CALL TO ORDER

1. **APPROVAL OF FEBRUARY MINUTES**

2. **UPDATES**
   a. **Update: Grant Applications and Regional Contract (Report Only)**
      Chief Scott Burnette

3. **NEW BUSINESS**
   a. **J.B. Lewis Turf Replacement Project - Recommendation for project design including material and input from Recreation Board**

4. **PUBLIC COMMENT (5 CITIZENS, 3 MINUTES EACH)**

NEXT MEETING: April 25, 2016, 3:30 P.M., 4th Floor Training Room, Municipal Building

ADJOURNMENT

For more information on the Public Safety Committee, please contact Alex Carmichael at828-259-5602.

PUBLIC SAFETY COMMITTEE
MINUTES

REGULAR MEETING
Monday, February 22, 2016

Board Members in Attendance:
Cecil Bothwell, Brian Haynes

Guests in Attendance:
Michael Collins, Haley Benton, Byron Greiner, Carol Rogoff Hallstrom, Mayor Esther Manheimer, Sabra Inha Raven

Staff in Attendance:
Deputy Chief James Baumstark, Chief Scott Burnette, Alex Carmichael, Paul Fetherston, Christina Hallingse, Chief Tammy Hooper, Gary Jackson, John Maddux, Deputy Chief Wade Wood

1. **CALL TO ORDER**
   Chairman Bothwell called the meeting to order at 3:33 PM. He said that Councilwoman Julie Mayfield was absent due to a meeting in Raleigh.

2. **APPROVAL OF MINUTES**
   The minutes from the meeting of 1/25/2016 were approved on Chairman Bothwell's motion, Councilman Haynes's second on a 2-0 vote.

3. **UPDATES**
   a. **Public Safety Records**
   John Maddux, Assistant City Attorney
   Chairman Bothwell recalled that Chief Hooper reviewed records rules at the last Public Safety Committee meeting, but Chairman Bothwell asked for the presentation from the City Attorney's Office due to the high level of public interest.

   Assistant City Attorney John Maddux provided an oral presentation reviewing public records law, including right of access, exceptions to access, and procedures governing body camera video recordings in Asheville.

   State law exempts public access to public records that are part of criminal intelligence, a criminal investigation, or personnel records. Asheville classifies body camera video recordings as criminal investigation and intelligence records. Other municipalities, such as Greensboro, classify them as personnel records. There appears to be interest in the General Assembly to classify body camera records at a State level.

The retention of video recordings follows the State retention schedule, as issued by the North Carolina Department of Culture. Asheville requested a local amendment for a 30 day retention period, which the Department of Culture granted.

Chairman Bothwell noted that if an investigation with body camera recordings became part of a criminal court case, the material could be turned over to the dense in the discovery process.

Councilman Haynes asked if other municipalities in North Carolina treat body camera video recordings as an open public record. Mr. Maddux replied that he was not aware of any.

4. **New Business**
   a. **Resurfacing Soccer Fields**
   Chairman Bothwell wished to discuss an item that was not on the agenda. Citizens have contacted him to express concerns over the planned resurfacing of the soccer fields at the John B. Lewis complex. They are concerned that the planned rubber pellet replacement material may not be safe.

   City Manager Gary Jackson said that the Parks and Recreation Director will engage a third party to put together recommendations on materials and will report back to the Public Safety Committee.

5. **PUBLIC COMMENT**
   a. Carol Rogoff Hallstrom expressed her appreciation that the City is moving on the body camera issue, which is an evolving issue. Ms. Rogoff Hallstrom recommended that the City invite representatives from the A.C.L.U. and attorneys of the media to provide countervailing concerns.

   b. Michael Collins expressed his concerns that body camera recordings should be accessible to the public. Making body camera recordings public has a civilizing effect. He asked that the City consider his safety as well as his privacy when deciding about public access to the video records.

   c. Byron Greiner of the Downtown Commission and the Downtown Association spoke about the smoking ban in the parks. He asked the Committee to reconsider the ban because it forces smokers onto the sidewalk and in front of business entrances. Councilman Bothwell noted that Black Mountain bans smoking on all of their sidewalks, but he has not heard how that has been received.

6. **ADJOURN**
   Chairman Bothwell adjourned the meeting at 4:00 PM without objection.

STAFF REPORT

To: Mayor and City Council Date: March 28, 2016

Via: Gary Jackson, City Manager

From: Paul Fetherston Prepared by: Alex Carmichael

Subject: Update: Grant Applications and Regional Contract

Summary Statement: The following staff report is intended to provide an informational update on the status of, and process for, the Asheville Fire Department's (Fire Department) grant applications and contract agreement as listed below. The grant applications and contract agreement were reviewed and recommended by the Finance Committee on March 22nd and subsequently approved by City Council.

Grant/ Program	Request/Award Amount	Cost
Assistance to Firefighters Grant - Fire Prevention & Safety	$110,000.00	$5,500
Staffing for Adequate Fire and Emergency Response (SAFER)	$868,032.00	$0
State Regional Hazardous Materials Response Team Number Six (6)	Approximately $69,000	$0

Review: The Assistance to Firefighters Grant (AFG) - Fire Prevention & Safety (FP&S), issued by the U.S. Department of Homeland Security, presents an opportunity for the Fire Department to purchase materials necessary for a comprehensive home fire safety program, digital fire extinguisher training props and an inflatable fire safety house. The AFG-FP&S Grant requires a match in an amount equal to and not less than five (5) percent of the grant awarded, or $5,500.00.

The Staffing for Adequate Fire and Emergency Response (SAFER) program is a two year grant opportunity for fire departments to increase or maintain the number of trained, 'front line' firefighters within communities. The grant provides 100% funding for the additional firefighter's salaries and benefits over two years. Recipients awarded under the grant program have no obligation to retain the SAFER funded positions after the conclusion of the grant funded period. The SAFER grant opportunity could enable the Fire Department to utilize funding that supports the maintenance of trained, front line firefighters within the community.

The State Regional Hazardous Materials Response Team Number Six (6) contract is a continuation of a partnership between the City of Asheville and the North Carolina Department of Public Safety (NCDPS) for Hazardous Materials Emergency Response Services dating back to FY1994-1995. The State of North Carolina provides funding that fully supports the operational costs of the program. The NCDPS contracts with municipalities to respond into the geographical

regions and provide technician level hazardous materials emergency response. The Region 6 areas encompass the westernmost twenty counties.

Strategic Operating Plan:
The AFG- FP&S, the SAFER grant, and the Regional Hazardous Materials Response Team Number Six (6) contract all align with the 2036 City Council Vision regarding a Smart City.

STAFF REPORT

To: Public Safety Committee Date: March 28, 2016

From: Roderick Simmons, Director
Parks and Recreation Department

Subject: **Turf Soccer Fields at the John B. Lewis Soccer Complex at Azalea Park**

Summary Statement: A review of the John B. Lewis Soccer Complex turf replacement project including potential options for moving the project forward.

Review: The John B Lewis Soccer Complex opened in 2005, and at the time, was the largest artificial turf facility in the Southeastern United States. Owned and operated by the City of Asheville, the park has over 500,000 park visitors and serves over 7,000 youth and adult soccer players annually. Funding for the original $3.3 million project came from the City of Asheville, the Lewis Family Foundation and the Western North Carolina Soccer Foundation (WNCSF).

The John B. Lewis Soccer fields are built in a floodplain. Across the country, this is a common phenomenon as the Federal Emergency Management Agency (FEMA) identifies soccer fields as an allowable use within a floodplain. During flood events, the fields are often covered in water. Once the waters recede silt is often left on the fields and must be removed at a cost of approximately $10,000 per clean up.

The soccer complex, home to Asheville Buncombe Youth Soccer Association (ABYSA), is the only facility of its kind in western North Carolina. Currently it features four synthetic turf fields with rubber crumb infill. The synthetic turf fields was chosen to maximize the utilization of playable hours without having to rest the fields as would be required for natural grass surface. Uses of the complex include youth soccer, adult soccer, flag football and other non-organized sports.

With an expected lifespan of ten years, the artificial turf is worn and in need of replacement to serve Buncombe County's vibrant soccer community and to remain a preferred sports tourism destination.

Timeline

2005
The four-field complex opened to roughly 5,000 players.

2009
ABYSA raised $529,000 for field lights on the four soccer fields at the John B. Lewis Soccer Complex at Azalea Park in order to expand the number of hours fields could be utilized by the public. ABYSA also assumed the obligation for over $500,000 in outstanding fundraising balance for the initial park construction.

January 2016

ABYSA was awarded a $1,100,000 Tourist Product Development Fund (TPDF) grant for John B. Lewis Soccer Complex improvements. This ABYSA project encompasses an upgrade and replacement of the rubber crumb and synthetic turf playing surface on the four soccer fields. The agreed-upon summer replacement schedule is designed to minimize disruption of programming. The planned finish of the project is July.

February 2016

ABYSA hired an engineering company to make a recommendation on the type of product to use during the replacement of the playing surface.

On February 12, 2016 the U.S. Environmental Protection Agency (EPA), the Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry (ATSDR), and the U.S. Consumer Product Safety Commission (CPSC) launched a multi-agency action plan to study key environmental human health questions.

This coordinated Federal Research Action Plan on recycled tire crumb used on playing fields and playgrounds includes outreach to key stakeholders, such as athletes and parents, and seeks to:

1. Fill important data and knowledge gaps
2. Characterize constituents of recycled tire crumb
3. Identify ways in which people may be exposed to tire crumb based on their activities on the fields.

March 2016

Engineering firm, Leading Design and Development (LDD Sports) provides recommendations to ABYSA and City of Asheville. The consultant has recommended the use of rubber tire crumb rubber infill with the replacement of the turf.

Rubber tire crumb infill are small rubber pellets that are used to soften the impact when someone makes impact with the playing surfaces. The rubber crumb pellets are made out of recycled tire products and have become the subject of a federal study that started in early February to understand the potential exposures to chemicals in the tire crumb that are used as infill on synthetic turf fields and playgrounds.

Below is a list of types of infill systems both standard and alternative products. The cost for each infill product varies based on the scope of the project.

Rubber materials

1. Rubber crumbs

2. Nike grind

Other materials

1. sand
2. coconut husks
3. cork
4. shredded mulch
5. pea gravel
6. non-Infill
7. Thermoplastic Elastomer
8. other materials to create a shock-absorbing surface under backyard and public playgrounds.

Federal Research

The federal research is designed to address the concerns that have been raised by the public about the safety of recycled tire crumb used in playing fields and playgrounds in the United States. Limited studies have not shown an elevated health risk from playing on fields with tire crumb, but the existing studies do not comprehensively evaluate the concerns about health risks from exposure to tire crumb.

While additional research may require evaluation beyond this year, the information will help answer some of the key questions that have been raised. By late 2016, the agencies will release a draft status report that describes the findings and conclusions of the research through that point in time. The report will also outline any additional research needs and next steps.

Existing Research and Information

Other federal, state, and local government agencies have conducted limited studies on artificial turf fields. For example, from 2009-2011, New York City and the states of New York, Connecticut and New Jersey conducted studies on tire crumb infill and synthetic turf. Also, in 2008 and 2009 the Consumer Product Safety Commission and the Agency for Toxic Substances and Disease Registry evaluated synthetic turf "grass blades" in response to concerns about lead exposure.

Their evaluations estimated that any potential releases of toxic chemicals from the grass blades, such as lead, would be below levels of concern. In 2008, EPA conducted a limited Scoping-Level Field Monitoring Study of Synthetic Turf Fields and Playgrounds. The purpose of the limited study was to test a method for measuring possible emissions from using synthetic turf on playgrounds and ball fields, not to determine the potential health risks of recycled tire crumb in playgrounds or in synthetic turf athletic fields.

Limited studies have not shown an elevated health risk from playing on fields with tire crumb, but the existing studies do not comprehensively evaluate the concerns about health risks from exposure to tire crumb.

EPA has developed a Tire Crumb and Synthetic Turf Field Literature and Report List (Nov. 2015). It is an extensive, although not exhaustive, survey of the literature from the past 12 years:
https://www.epa.gov/chemical-research/tire-crumb-and-synthetic-turf-field-literature-and-report-list-nov-2015

City staff is surveying other North Carolina municipalities to obtain information on most recent replacements.

The Recreation Board

At the March 14, 2016 Recreation Board meeting, the John B. Lewis Soccer Complex turf replacement was discussed. The original plan for turf replacement at the soccer complex is to replace one field per year until all four fields are completely replaced. ABYSA applied for and received a TPDF grant in order to make the improvements on a faster timeline.

- Michael Rottjakob, of the ABYSA, presented Ryan Teeter of LDD Sports as the engineer selected to perform the turf replacement.

- Mr. Teeter shared a presentation with many technical specifications related to all options available. He also presented reasons as to why some options would not be appropriate for the soccer complex due to the low lying proximity to the Swannanoa River and flood occurrences.

- Crumb rubber and Nike Grind are options that are better suited to this particular location, will not float away during flood events, and will not require the additional shock pad.

- Some type of the organic materials are not suited to this particular location, will not stay in place during flood events and will float into the river. The manufacturer of the organic alternatives would not be able to stand behind the product given the location of the site.

- Five members of the community spoke on behalf of concerned parents and the potential dangers to soccer players. One member of the community raised additional environmental concerns that may impact the Swannanoa River. Councilman Bothwell stated that parents have expressed their concern with the turf and that the Public Safety Committee will be discussing the issue in a few weeks.

Fiscal Impact:

The TPDF funding of this project will allow the City to free up $900,000 earmarked for the fields in the City Improvements Program over a six-year budget cycle.

Maintenance is critical to long term performance of the four field soccer complex facility. The fields are heavily used which requires more maintenance and constant inspections to protect the investment and maintain an acceptable playing surface. The current annual maintenance cost is $51,000 per year for the entire sports complex. The four soccer fields are just a subset of the overall maintenance of the complex.

Next Steps: The following options are offered for the committee's consideration:

1. Move forward and bid the project with the engineer's recommended product
2. Move forward and bid the project with a different product
3. Request more research on options for other products
4. Move forward to full Council for a policy discussion
5. Wait for EPA Report to be published
6. Take action to commission a study
7. Take no action

Attachment: **Federal Research Action Plan**
Flood map
Question & Answers
LDD Presentation

John B Lewis Soccer Complex

science in ACTION

INNOVATIVE RESEARCH FOR A SUSTAINABLE FUTURE

Federal Research Action Plan on Recycled Tire Crumb Used on Playing Fields and Playgrounds

Background

Concerns have been raised by the public about the safety of recycled tire crumb used in playing fields and playgrounds in the United States. Limited studies have not shown an elevated health risk from playing on fields with tire crumb, but the existing studies do not comprehensively evaluate the concerns about health risks from exposure to tire crumb.

Federal Research

Because of the need for additional information, the U.S. Environmental Protection Agency (EPA), the Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry (ATSDR), and the U.S. Consumer Product Safety Commission (CPSC) are launching a multi-agency action plan to study key environmental human health questions. This coordinated federal action includes outreach to key stakeholders, such as athletes and parents, and seeks to fill important data and knowledge gaps, characterize constituents of recycled tire crumb, and identify ways in which people may be exposed to tire crumb based on their activities on the fields. The Federal Research Action Plan includes numerous activities, including research studies. While additional research questions may require evaluation beyond this year, the information will help answer some of the key questions that have been raised.

Objectives

The specific objectives of this research effort are to:

- Determine key knowledge gaps.
- Identify and characterize chemical compounds found in tire crumb used in artificial turf fields and playgrounds.
- Characterize exposures, or how people are exposed to these chemical compounds based on their activities on the fields.
- Identify follow-up activities that could be conducted to provide additional insights about potential risks.

Research Summary

Conduct Data and Knowledge Gap Analysis: The Agencies will evaluate the existing scientific information related to recycled tire crumb used in artificial turf fields and other types of playing fields to build on current understanding of the state-of-the-science and inform the research activities.

Outreach to Key Stakeholders, Including Parents and State Agencies: EPA, ATSDR, and CPSC will convene discussions with members of the public and organizations with an interest in studying tire crumb. These parties have ongoing tire crumb studies or can provide expertise to inform the federal study. The agencies will meet with:

- ***Athletes, parents, and coaches*** to get first-hand perspectives on potential exposures.

- ***Government agencies*** to discuss the federal research, share relevant information from state-level studies, request support, and identify current best practices for minimizing exposures. One important state partner is California. California's Office of Environmental Health Hazard Assessment has an in-depth tire crumb study underway. This study includes a series of scientific studies to determine if chemicals in tire crumb can potentially be released under various environmental conditions and what, if any, exposures or health risks these potential releases may pose to players who frequently play on artificial fields constructed with tire crumb. The evaluation includes expert solicitation and stakeholder participation to help guide the design and EPA and other federal agencies are actively engaged in that process.
- ***Industry representatives*** to better understand the manufacturing process and use parameters for recycled tire crumb used in artificial turf and for recycled tire-derived playground surface materials.

Testing of Tire Crumb to Characterize Chemicals, Potential Emissions, and Toxicity: The agencies will test different types of tire crumb. These tests – along with existing scientific information from the literature – will help us better understand the tire crumb materials. For example, this will help the scientists working on this effort to understand chemicals that are found in tire crumb and might be emitted from the material. It will also help us understand if chemicals can be released from tire crumb when a person comes into contact with them – for example, when tire crumb comes in contact with sweat on the skin or are accidentally ingested by athletes playing on turf fields. Once we better understand what chemicals are in tire crumb, we will also be able to search existing databases of information to understand the potential health effects of those chemicals. Some examples of research activities are listed below.

- Based on information obtained through the efforts described above, evaluate various manufacturing process (for example, the tire crumb manufacturing process and the tire-derived playground surface materials manufacturing process), including an analysis of the diversity of these processes, material blends, components of the material (metals, volatile and semi-volatiles, particulate matter).
- Conduct laboratory analyses to characterize components of the chemicals in newer and older (aged) tire crumb materials at different temperatures.
- Determine the rate at which tire crumb components are absorbed by the body using simulations of biological processes in the lab, for example simulations of activities in the stomach as well as salivating and sweating.
- Evaluate potential cancer and non-cancer toxicity of key tire crumb constituents based on existing databases of information.

Launch Pilot-Scale Study to Characterize Exposure Under Use Conditions: The agencies will conduct several activities to better understand potential exposures that may occur when individuals frequently use artificial turf fields. Scientists will identify various exposure scenarios (ways in which people may be exposed based on their activities on the fields) and then design and conduct a pilot-scale exposure study to characterize people's exposures on these fields. This work will consider possible ways that one may be exposed – including by breathing, accidentally ingesting, or physical contact with tire crumb. Some examples of research activities are listed below.

- Develop exposure scenarios, paying particular attention to high-end exposure scenarios.
- Identify activity patterns for athletes and other relevant populations.
    - Estimate nature, duration, and frequency of exposures.
    - Evaluate other relevant factors, such as the standard operation and maintenance of the fields (e.g., replacement of materials, use of biocides) and how the materials change over time.
- Design and conduct pilot-scale exposure study to characterize exposures on select playing fields, considering all relevant routes of exposure (inhalation, dermal, oral).

• Develop methods, as necessary, for measuring exposure to both targeted and non-targeted analytes.

Public Comment Opportunities: Some studies that are part of this research plan are posted for public comment through a Federal Register Notice (available at Regulation.Gov, search by docket number Docket No. ATSDR–2016–0002). For example, one study that is part of the Federal Register Notice will gather data from facilities with fields that contain tire crumb materials, and another study will gather activity data from persons who routinely perform activities on artificial turf fields with tire crumb. The number of fields that will be sampled as well as the number of field users who will be surveyed are described in the Federal Register Notice. We encourage you to review the Federal Register Notice and provide your comments.

Additional Research Activities: EPA, CDC/ATSDR, and CPSC have set an ambitious schedule for this effort in 2016. A number of additional activities may also be initiated during this time, depending upon further consideration of their value to the overall effort, their feasibility, the availability of resources, and other factors. Additional research could include identifying potential biomarkers of exposure, collecting preliminary biomonitoring data, analyzing samples of recycled tire crumb used on playground surfaces, and evaluating the feasibility of conducting an epidemiologic study. CPSC is exploring conducting a survey of parents to get first-hand perspectives on potential exposures from playground surface materials. As part of this coordinated effort, CPSC plans to conduct additional work on the safety of playgrounds.

Timeline and Deliverables

By the end of 2016, the agencies anticipate releasing a draft status report that describes the preliminary findings and conclusions of the research through that point in time. The draft status report will summarize the agencies' progress in: (1) Identifying key constituents of concern in recycled tire crumb used in artificial turf fields; (2) Assessing potential exposures to potentially harmful constituents; (3) Conducting an initial evaluation of potential cancer and non-cancer toxicity of key chemical constituents; and (4) Identifying follow-up activities that could be conducted to provide additional insights about potential risks. The results of the preliminary work on recycled tire-derived playground surface materials will also be described. The report will also outline any additional research needs and next steps.

More Information

Information and updates about this research will be posted to EPA's website – http://www.epa.gov/TireCrumb

Tire Crumb Rubber Questions and Answers

Q: What research is included in the Federal Research Action Plan?

The plan includes four research activities. 1) Outreach to key stakeholders, states, relevant federal agencies and others - EPA, CDC/ATSDR, and CPSC will convene discussions with other agencies that have researched tire crumb or have research underway, agencies that can provide expertise to inform the federal study and have discussions with key groups including tire crumb manufactures, coaches and athletes. 2) Conduct a data gaps analysis - EPA, CDC/ATSDR, and CPSC will evaluate the existing scientific information related to recycled rubber tire crumb used in artificial turf fields to build on current understanding of the state-of-the-science and inform the research activities. 3) Characterize and test tire crumb materials - EPA, CDC/ATSDR, and CPSC will test different types of tire crumb (samples from newer and older fields, for example). These tests, along with existing scientific information from the literature, will help us better understand the tire crumb materials. 4) Develop exposure scenarios - EPA, CDC/ATSDR, and CPSC will conduct several activities to better understand potential exposures that may occur when athletes, and others use artificial turf fields. This work will consider all possible ways that one may be exposed – including by breathing, unintentionally ingesting, or touching tire crumb or the chemicals in tire crumb. Some of the studies that are part of this research plan will be posted soon for public comment through a Federal Register Notice (available at Regulation.Gov). We encourage you to review the Federal Register Notice and provide your comments. Once the Federal Notice is available, it will be posted to EPA's tire crumb research website - www.epa.gov/tirecrumb.

Q: Which agencies are involved with the research?

This plan is led and chiefly implemented by the US Environmental Protection Agency (EPA) and the Centers for Disease Control and Prevention's National Center for Environmental Health/Agency for Toxic Substances and Disease Registry (CDC-NCEH/ATSDR), in cooperation with the US Consumer Product Safety Commission (CPSC) and other agencies. Other agencies such as National Institute of Environmental Health Sciences, the U.S. Department of Defense and California's Office of Environmental Health Hazard Assessment will provide expertise, facilities and/or sharing of information.

Q. When will the research begin and when will it end?

The research is currently underway and the plan is to release a status report with the summary of findings by the end of 2016. Some of the studies that are part of this research plan will be posted soon for public comment through a Federal Register Notice (available at Regulation.Gov). We encourage you to review the Federal Register Notice and provide your comments. Once the Federal Notice is available, it will be posted to EPA's tire crumb research website - www.epa.gov/tirecrumb. Comments submitted through the Federal Register Notice will help to better define the study which could impact the timeline. While this effort won't provide all the answers, the information will help answer some of the key questions that have been raised about tire crumb used in artificial turf fields and will provide a better understanding of potential exposures that athletes and others may experience by using these fields. Depending upon the findings, available resources and other considerations, additional research beyond the first year

may be conducted. It is also important to note that the research is being conducted within an ambitious time frame.

Q. Where are the fields located that will be studied?
Some of the studies that are part of this research plan will be posted soon for public comment through a Federal Register Notice (available at Regulation.Gov). The proposed number of fields that will be sampled as well as the number of field users who will be surveyed are described in this Federal Register Notice. Because of this, we encourage you to review the plan and provide your comments.

Q. How can you get involved and find out more information about this research?
Two research studies associated with the Federal Research Action Plan will be posted soon for public comment through a Federal Register Notice (available at Regulation.Gov). We encourage you to review the Federal Register Notice and provide your comments. Once the Federal Notice is available, it will be posted to EPA's tire crumb research website - www.epa.gov/tirecrumb.

Q. How is the Federal Government working with California?
California's Office of Environmental Health Hazard Assessment, under contract from CalRecycle, is conducting a comprehensive evaluation of tire crumb. This evaluation is being designed to deliver the kind of information states, communities and parents are looking for so they can make better informed decisions for their communities and their families. EPA, CPSC and other federal agencies are working with the California's Office of Environmental Health Hazard Assessment to provide our expertise to assist with their evaluation of tire crumb.

Q. What advice is there for communities who are concerned about tire crumb?
EPA recognizes that communities, parents and state and local officials are concerned about tire crumb used in artificial turf fields. That's why EPA, ATSDR, and CPSC are launching this coordinated federal effort: to fill important data gaps, particularly with respect to understanding potential exposures to chemicals in the tire crumb. The study's findings will provide a better understanding of potential exposures that athletes, young children and others may experience by using these fields. While this one-year study won't provide all the answers, the information will help answer some of the key questions that have been raised.

Q. Are there any alternative materials/products that can be used?
EPA is aware of a few alternatives to tire crumb that can be used as infill in artificial turf, such as the use of organic materials like sand, coconut husks, or cork. In addition, CPSC has advocated that the public and homeowners use shredded mulch, pea gravel and other materials to create a shock-absorbing surface under backyard and public playgrounds.

Q. Who regulates the management and disposal of used tires and defines a product as a solid waste?
State and local governments are the primary agencies for regulating the management of used tires and have been responsible for assessing the environmental and public health impacts and challenges of managing tire piles, which can be vectors for mosquitoes and/or at risk for tire

fires.

Q. How is tire crumb produced?

Tire crumb is manufactured by reducing scrap tires down to various sizes depending on its intended application and market use and by removing 99 percent or more of the steel and fabric from them. The tire crumb is classified by sifting screens that return oversize pieces back into the reduction process. Magnets are used throughout the process to remove the wire and other metal contaminants and air separators are used to remove the fabric. The American Society for Testing Materials (ASTM) has standards for specifying different size ranges for tire crumb applications. ASTM D5603 Standard Classification for Rubber Compounding Materials-Recycled Vulcanizate Particulate and ASTM D5644 Test Methods for Rubber Compounding materials-Determination of Particle Size Distribution of Recycled Vulcanizate Particle Rubber.

Q. States and other organizations have done studies on tire crumb. What have they concluded?

Current information from a number of studies does not show an elevated health risk from playing on fields with tire crumb. However, these studies do not comprehensively address the concerns about the potential health risks associated with exposure to tire crumb.

Q. Will the results of all of this research be made public? Will states be given access to help them make decisions about use?

By the end of 2016, the agencies anticipate releasing a draft status report that describes the preliminary findings and conclusions of the research through that point in time. The draft status report will summarize the agencies' progress in: (1) Identifying key constituents of concern in recycled tire crumb used in artificial turf fields; (2) Assessing potential exposures to potentially harmful constituents; (3) Conducting an initial evaluation of potential cancer and non-cancer toxicity of key chemical constituents; and (4) Identifying follow-up activities that could be conducted to provide additional insights about potential risks. The results of the preliminary work on recycled tire-derived playground surface materials will also be described. The report will also outline any additional research needs and next steps.

Q. What are the various markets for crumb rubber?

In the U.S., markets for crumb rubber include new rubber products, playground and other sports surfacing, and rubber-modified asphalt. The crumb rubber used in these ground rubber applications consumed 975,000 tons of scrap tires in 2013, or about 25% of the volume of scrap tires generated. Sports surfaces accounted for 17% of crumb rubber use.

Ground Rubber Markets

Molded/Extruded Rubber Products (e.g. rubber gaskets)	33%
Playground Mulch	31^%

Sports Surfaces	17%
Asphalt	7%
Automotive	6%
Export	6%

Source: Rubber Manufacturers Association: 2013 U.S. Scrap Tire Management Summary

LDD Presentation Questions

What was Ryan Teeter and Design and Development LLC hired to do? How much did we pay him?	ABYSA hired an expert consulting firm specializing in synthetic turf athletic fields, Leading Design and Development (LDD ISports), to provide ABYSA and the City with design and product specification recommendations and other engineering services needed for the project. He did a comprehensive field inspection. The City did not hire or pay for the consultant.
What tests did Ryan Teeter perform with his company and where are the results?	Infiltration test, Stormwater system inspection test, Floodplain test. The reports are on file.
Reports from where they have measured the heat on this field. What do they consider too hot not to play on the artificial turf? Who measures on regular basis and makes the call not to play if heat is issue?	ABYSA used the measuring device to generally measure the heat index as a point of comparison to decide if a policy needs to be implemented for heat. The devices weren't used to make a policy to decision.
What is their action plan when it floods?	City Park Maintenance staff maintains the fields at the complex. ABYSA operates the Leagues and oversees programming. <u>The City's Action Plan during Flood Event</u> 1.receive reports of flooding at soccer complex 2. Alert staff and security contractor to close park gates and restrooms 3. Post park closure on city website and department Facebook site, Contact media 4. Staff monitors park throughout flooding event

	5. As water recedes and park become accessible and safe staff immediately begins cleanup efforts 6. Update park closure information on the department Facebook site and city website 7.Continue cleanup efforts 8. Open park once roads and sidewalks are clear and safe. Continue to clean soccer fields 9. Once soccer fields are cleaned and groomed open park completely
Report from what will happen if the field floods w/ the crumb rubber?	The crumb rubber will not leave the field and float down the stream.
Report on how they plan to clean and maintain the artificial turf for safety and cleanliness of the children. Costs associated with this?	Soccer field cleanup efforts include the following; removing large waterborne debris, adding gravel to parking lots, pressure washing sidewalks, mechanically sweeping soccer fields to remove silt, repair of fences. Sweeping the accumulated silt from the four soccer fields is by far the most time intensive activity. The two flood events that overtopped the soccer fields in 2015 cost approximately $10,000 each to clean up.
If they don't properly clean and maintain, then what are the consequences? Especially since the health of our children are at stake.	The fields will be unplayable if they are not properly cleaned and maintain. Most likely the warranty on the playing surface will be void if the fields are not cleaned and maintained. After a flood event City staff and ABYSA works with environmental consultants, after consultation with the appropriate regulatory agency to make sure there is no Imminent Hazard pursuant to the regulations associated with the continued use of the playing fields.
Is there any option to build up the fields to avoid the flooding damage? How much would that cost?	Building up the soccer fields would conflict with one of the flood management objectives of the Lake Craig project which is to protect properties locate downstream in Biltmore Village.

Is there a manufacturer's guarantee for the design that is being suggested to ABYSA and the City by the consultant? Is there a warranty for any structure or design in a flood zone? crumb or organic?	The City worked with ABYSA to include in the contract with the engineer the appropriate amount of insurance to protect the City and it's asset.